

METHOD FOR SIMULATION MODELING OF WELL FRACTURING

Abstract

A model system for simulating the performance of a subterranean well, starts with a base model wherein input logging data, pressure transient data and PVT data is introduced into the base model. A numerical interpreter then calculates the predicted performance of the well. A match system compares actual performance data with calculated performance data based on the base model through reiterative loop for modifying the base model to provide a match between the actual performance data and the predicted performance data to optimize the base model. The method for generating the optimized performance data in accordance with the subject invention incorporates the steps of introducing known pressure transient data, well logging data and PVT data for the well into a base model and producing a performance prediction from the base model. These results are compared with actual performance data and the model is modified to generate a performance prediction that matches the actual performance for producing an optimized model. The method is particularly useful

because it accounts for and adjusts the performance prediction based on non-Darcy factors effecting the fluid parameters in the well.